

Alt Cntrt.

3. (Amended). Function carrier in accordance with claim 1,
characterised in that
the rivet sleeve has a tubular deformable region adjacent the head part and a ring-like
deformable region remote from the head part.

4. (Amended). Function carrier in accordance with claim 1,
characterised in that
the end face of the rivet sleeve remote from the head part is arranged perpendicular
to the longitudinal axis of the shaft part.

5. (Amended). Function carrier in accordance with claim 4,
characterised in that
the said end face of the rivet sleeve is formed as a sliding surface.

6. (Amended). Function carrier in accordance with claim 4,
characterised in that
the said end face of the rivet sleeve is formed for the transmission of rivet forces
acting in the axial direction, but is not itself deformable or is at least substantially not deformable
under the riveting forces.

7. (Amended). Function carrier in accordance with claim 4,
characterised in that
the said end face is designed to take up torques which turn the rivet sleeve and bring
about the deformation of the rivet sleeve.

8. (Amended). Function carrier in accordance with claim 7,

characterised in that

the shaft part of the functional element has an outer thread, at least in the region adjacent to the concave fillet and in that the rivet sleeve has an internal thread corresponding thereto.

9. (Amended). Function carrier in accordance with claim 1,

characterised in that

the shaft part of the functional element has a means for the transmission of torques at the end remote from the head part.

10. (Amended). Function carrier in accordance with claim 9,

characterised in that

the means is a spigot having one or more side faces or longitudinal grooves.

11. (Amended). Function carrier in accordance with claim 9,

characterised in that

the means has the form of a tool or wrench-receiving recess formed in the free end of the shaft part, for example in the form of an internal hexagon.

12. (Amended). Function carrier in accordance with claim 1,

characterised in that

the shaft part of the functional element has a ring groove in the region directly ahead of the concave fillet, and in that the ring-like region of the rivet sleeve can be deformed into this ring groove.

SEARCHED
INDEXED
SERIALIZED
FILED
Cont.

13. (Amended). Function carrier in accordance with claim 1,

characterised in that

the concave fillet is provided with features (24; 100) providing security against rotation, for example with a plurality of recesses and/or noses distributed in the peripheral direction, and in that the rivet sleeve can be brought by the deformation into a form-fitted connection with these features (24; 100) providing security against rotation.

14. (Amended). Function carrier in accordance with claim 1,

characterised in that

the end face of the head part remote from the shaft part is equipped with features providing security against rotation, for example noses providing security against rotation and/or recesses.

15. (Amended). Function carrier in accordance with claim 3,

characterised in that

the ring-like region of the rivet sleeve has, when considered in a radial section, at least substantially the shape of a right-angled triangle, the outer side of which is arranged obliquely to the end face of the rivet sleeve remote from the head part and to the inner face of the rivet sleeve adjacent the shaft part.

16. (Amended). Function carrier in accordance with claim 1,

characterised in that

the tubular region of the rivet sleeve has an inner wall which represents an axial continuation of the inner surface of the ring-like region of the rivet sleeve.

17. (Amended). Function carrier in accordance with claim 1,

characterised in that

the tubular region of the rivet sleeve is at least substantially rectangular when considered in radial section, with the tubular region having an inner wall, which represents an axial continuation of the inner surface of the ring-like region of the rivet sleeve and in that the ring-like region of the rivet sleeve forms a ring shoulder at its outer side with the adjacent side of the ring-like region.

18. (Amended). Function carrier in accordance with claim 1,
characterised in that
the functional element is formed as a bolt element.

19. (Amended). Function carrier in accordance with claim 1,
characterised in that
the functional element is formed as a nut element, i.e. at least the shaft part is made hollow and this and/or the head part is formed with an internal thread or can be provided with an internal thread.

20. (Amended). Component assembly in accordance with claim 1,
characterised in that
the plate-like component has a hole, the diameter of which corresponds at least substantially to that of the head part and in that the deformed, tubular region of the rivet sleeve, at the inner side, contacts the concave fillet in at least substantially flush manner, projects radially outwardly beyond the edge of the head part of the functional element and forms a ring groove with the ring-like region which accommodates the marginal region of the hole of the component.

21. (Amended). Component assembly comprising a component, for example a sheet metal part or a plastic part and a function carrier in accordance with one or more of the preceding claims, characterised in that

the component has a pot-like recess, the diameter of which corresponds at least substantially to that of the head part and the base of which is contacted by the end face of the head part remote from the shaft part in a manner secured against rotation and in that the deformed tubular region of the rivet sleeve at least substantially flushly contacts the concave fillet at the inner side, projects radially outwardly over the edge of the head part of the functional element and projects into the side wall of the pot-like recess of the component and is received there in a form-fitted manner.

22. (Amended). Component assembly in accordance with claim 21,

characterised in that

the end face of the rivet sleeve remote from the head part is either arranged flush with the surface of the component remote from the head part or sunk into this surface, with the ring-like region of the rivet sleeve optionally projecting into a possibly present groove of the shaft part and optionally having, in the region of this groove, a conical alignment aid arranged concentric to the shaft part for a component to be mounted.

23. (Amended). Method of inserting a function carrier into a plate-like component to form a component assembly, wherein the functional element includes a shaft, head parts and a rivet sleeve and wherein the rivet sleeve is movable in the axial direction of the shaft part along the shaft and wherein the functional element has a concave fillet,

characterised in that

the head part of the functional element is passed through a hole formed in the plate-like component or is pressed into a recess formed in the component and the rivet sleeve is subsequently moved in the axial direction of the functional element onto the concave fillet and onto the head part of the functional element, whereby the tubular region of the rivet sleeve is deflected radially outwardly by the concave fillet into an anchoring position in which the free end of the tubular region projects radially beyond the head part of the functional element.

24. (Amended). Method in accordance with claim 23,

characterised in that

the free end of the tubular region is pressed into the hole wall of the component by the deformation of the tubular region of the rivet sleeve and thus prevents the extraction of the function carrier out of the recess of the component receiving the head part of the functional element.

25. (Amended). Method in accordance with claim 23,

characterised in that

through the deformation of the tubular region of the rivet sleeve, a groove is formed between the deformed tubular region and the ring-like region which receives the material of the marginal edge of the hole of the component.

26. (Amended). Method in accordance with claim 25,

characterised in that

the ring-like region of the rivet sleeve is deformed into a ring groove formed in the shaft part directly ahead of the concave fillet.

27. (Amended). Method in accordance with claim 23,

characterised in that

the rivet sleeve is moved in the axial direction towards the concave fillet while an axial force in the opposite direction is produced on the shaft part of the functional element.

28. (Amended). Method in accordance with claim 23,

characterised in that

the ring-like region of the rivet sleeve has an internal thread which is screwed onto an external thread provided on the shaft part of the functional element and the radial deformation of the tubular region of the rivet sleeve is produced by a relative rotation between the rivet sleeve and the functional element.

29. (Amended). Method in accordance with claim 23,

characterised in that

an auxiliary tool provided with a thrust bearing is used for the deformation of the rivet sleeve, with the thrust bearing having a lower ring, the end face of which remote from the rolling elements presses against the end face of the ring-like region of the rivet sleeve and the other ring of which is provided on a rotatable sleeve which has an internal thread which cooperates with an external thread provided on the shaft part of the functional element, with a relative rotation of the sleeve which cooperates with the outer thread of the shaft part of the functional element leading to an axial movement of the thrust bearing and of the rivet sleeve and through this to a deformation of the rivet sleeve at the concave fillet of the functional element.

30. (Amended). Tool for the insertion of a function carrier into a plate-like component, wherein the functional element includes shaft and head parts and a rivet sleeve and wherein the rivet sleeve is movable in the axial direction of the shaft part along the shaft part,

characterised in that

the tool has two coaxial devices rotatable relative to one another, with the inner device being capable of being brought into a rotationally fixed connection with the shaft part of the functional element and the outer device being capable of being brought into rotationally fixed connection with the rivet sleeve or with an auxiliary tool which presses onto the rivet sleeve, with either the ring-like region of the rivet sleeve or the outer device having an inner thread which cooperates with an outer thread provided on the shaft part of the functional element.

31. (Amended). Tool in accordance with claim 30,

characterised in that

the auxiliary tool is formed as a thrust bearing, with the thrust bearing having a lower ring, the end face of which remote from the rolling elements presses against the end face of the ring-like region of the rivet sleeve and the other ring of which is provided on a rotatable sleeve which has an internal thread which cooperates with an external thread provided on the shaft part of the functional element, with a relative rotation of the sleeve which cooperates with the outer thread of the shaft part of the functional element leading to an axial movement of the thrust bearing and of the rivet sleeve and through this to a deformation of the rivet sleeve at the concave fillet of the functional element.